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1. Introduction from the EPA's Oil Program

1. Introduction from the EPA's Oil Program

On March 24, 1989, shortly after midnight, the oil tanker *Exxon Valdez* struck Bligh Reef in Prince William Sound, Alaska, spilling more than 11 million gallons of crude oil. The spill was the largest in U.S. history and tested the abilities of local, national, and industrial organizations to prepare for, and respond to, a disaster of such magnitude. Many factors complicated the cleanup efforts following the spill. The size of the spill and its remote location, accessible only by helicopter and boat, made government and industry efforts difficult and tested existing plans for dealing with such an event.

The spill posed threats to the delicate food chain that supports Prince William Sound's commercial fishing industry. Also in danger were ten million migratory shore birds and waterfowl, hundreds of sea otters, dozens of other species, such as harbor porpoises and sea lions, and several varieties of whales.

Since the incident occurred in open navigable waters, the U.S. Coast Guard's On-Scene Coordinator had authority for all activities related to the cleanup effort. His first action was to immediately close the Port of Valdez to all traffic. A [U.S. Coast Guard](#) investigator, along with a representative from the Alaska Department of Environmental Conservation, visited the scene of the incident to assess the damage. By noon on Friday, March 25, the Alaska Regional Response Team was brought together by teleconference, and the [National Response Team](#) was activated soon thereafter.

Alyeska, the association that represents seven oil companies who operate in Valdez, including Exxon, first assumed responsibility for the cleanup, in accordance with the area's contingency planning. Alyeska opened an emergency communications center in Valdez shortly after the spill was reported and set up a second operations center in Anchorage, Alaska.

The Coast Guard quickly expanded its presence on the scene, and personnel from other Federal agencies also arrived to help. EPA specialists in the use of experimental bioremediation technologies assisted in the spill cleanup and the [National Oceanic and Atmospheric Administration](#) was involved in providing weather forecasts for Prince William Sound, allowing the cleanup team to adapt their methods to changing weather conditions. Specialists from the Hubbs Marine Institute in San Diego, California, set up a facility to clean oil from otters, and the International Bird Research Center of Berkeley, California, established a center to clean and rehabilitate oiled waterfowl.

Three methods were tried in the effort to clean up the spill:

- Burning
- Mechanical Cleanup
- [Chemical Dispersants](#)

A trial burn was conducted during the early stages of the spill. A fire-resistant [boom](#) was placed on tow lines, and two ends of the boom were each attached to a ship. The two ships with the boom between them moved slowly throughout the main portion of the slick until the boom was full of oil. The two ships then towed the boom away from the slick and the oil was ignited. The fire did not endanger the main slick or the *Exxon Valdez* because of the distance separating them. Because of unfavorable weather, however, no additional burning was attempted in this cleanup effort.

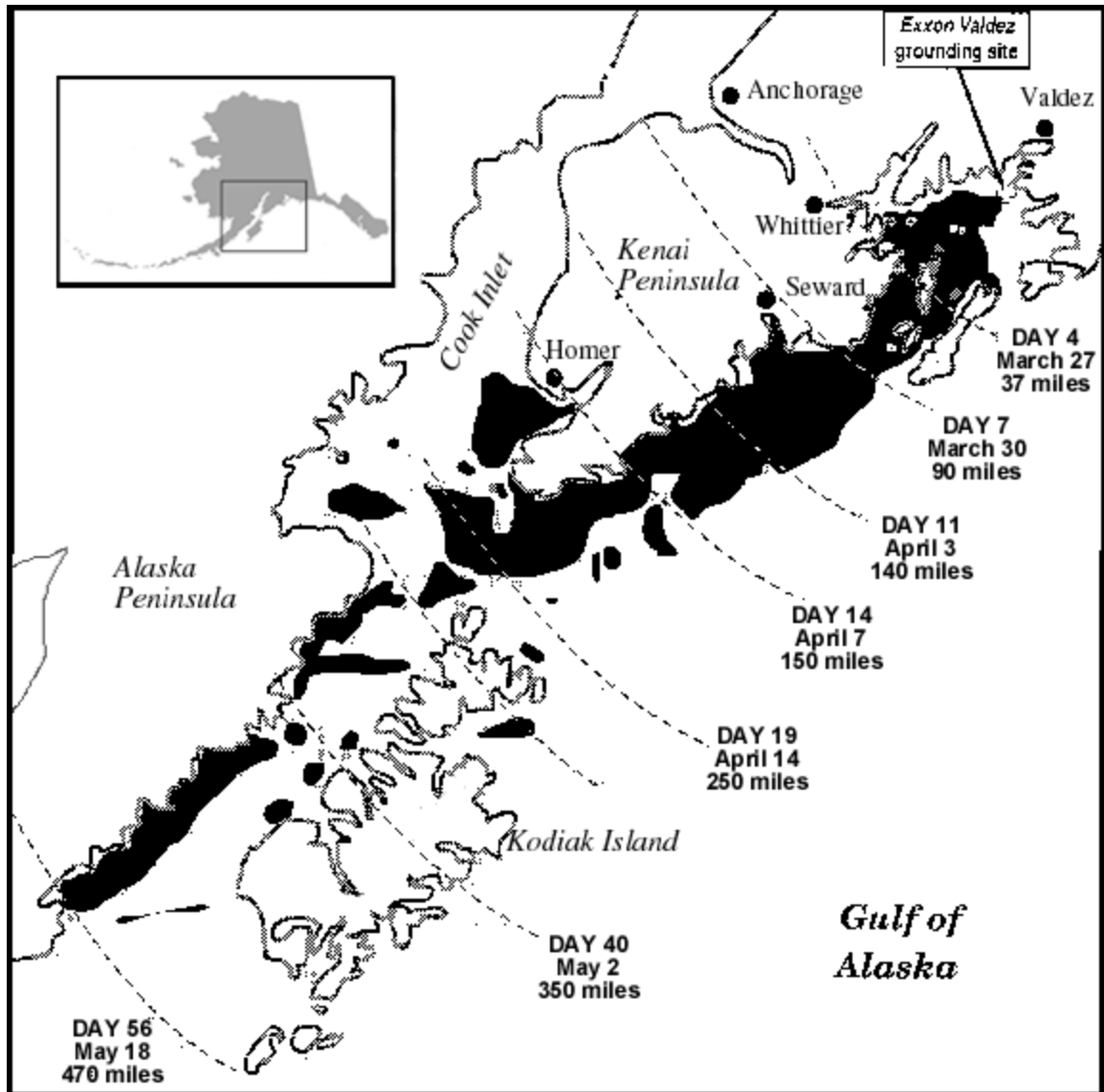
Shortly after the spill, mechanical cleanup was started using booms and [skimmers](#). However, skimmers were not readily available during the first 24 hours following the spill. Thick oil and heavy kelp tended to clog the equipment. Repairs to damaged skimmers were time consuming. Transferring oil from temporary storage vessels into more permanent containers was also difficult because of the oil's weight and thickness. Continued bad weather slowed down the recovery efforts.

In addition, a trial application of [dispersants](#) was performed. The use of dispersants proved to be controversial. Alyeska had less than 4,000 gallons of dispersant available in its terminal in Valdez, and no application equipment or aircraft. A private company applied dispersants on March 24, with a helicopter and dispersant bucket. Because there was not enough wave action to mix the dispersant with the oil in the water, the Coast Guard representatives at the site concluded that the dispersants were not working and so their use was discontinued.

Efforts to save sensitive areas were begun early in the cleanup. Sensitive environments were identified, defined according to degree of cleanup, and then ranked for their priority for cleanup. Seal pupping locations and fish hatcheries were given the highest importance, and for these areas special cleaning techniques were approved. Despite the identification of sensitive areas and the rapid start-up of shoreline cleaning, however, [wildlife rescue](#) was slow. Adequate resources for this task did not reach the accident scene quickly enough. Through direct contact with oil or because of a loss of food resources, many birds and mammals died.

In the aftermath of the *Exxon Valdez* incident, Congress passed the [Oil Pollution Act of 1990](#), which required the Coast Guard to strengthen its regulations on oil tank vessels and oil tank owners and operators. Today, tank hulls provide better protection against spills resulting from a similar accident, and communications between vessel captains and vessel traffic centers have improved to make for safer sailing.

Excerpts from: EPA's Oil Program.
<http://www.epa.gov/oilspill/exxon.htm>



Map of the Exxon Valdez Oil Spill

(Source: Exxon Valdez Oil Spill Trustee Council.
<http://www.oilspill.state.ak.us/facts/spillmap.html>)

2. Questions and Answers



1. Questions and Answers

Where is the *Exxon Valdez* today?

Exxon Shipping Company was renamed Sea River Shipping Company. The *Exxon Valdez* was repaired and renamed the *Sea River Mediterranean* and is used to haul oil across the Atlantic. The ship is prohibited by law from returning to Prince William Sound.

How did the accident happen?

The National Transportation Safety Board investigated the accident and determined that the probable causes of the grounding were:

1. The failure of the third mate to properly maneuver the vessel, possibly due to fatigue and excessive workload;
2. The failure of the master to provide a proper navigation watch, possibly due to impairment from alcohol;
3. The failure of Exxon Shipping Company to supervise the master and provide a rested and sufficient crew for the *Exxon Valdez*;
4. The failure of the U.S. Coast Guard to provide an effective vessel traffic system
5. The lack of effective pilot and escort services.

Okay. But what actually happened?

The *Exxon Valdez* departed from the Trans Alaska Pipeline terminal at 9:12 pm March 23, 1989. William Murphy, an expert ship's pilot hired to maneuver the 986-foot vessel through the Valdez Narrows, was in control of the wheelhouse. At his side was the captain of the vessel, Joe Hazelwood. Helmsman Harry Claar was steering. After passing through Valdez Narrows, pilot Murphy left the vessel and Captain Hazelwood took over the wheelhouse. The *Exxon Valdez* encountered icebergs in the shipping lanes and Captain Hazelwood ordered Claar to take the *Exxon Valdez* out of the shipping lanes to go around the icebergs. He then handed over control of the wheelhouse to Third Mate Gregory Cousins with precise instructions to turn back into the shipping lanes when the tanker reached a certain point. At that time, Claar was replaced by Helmsman Robert Kagan. For reasons that remain unclear, Cousins and Kagan failed to make the turn back into the shipping lanes and the ship ran aground on Bligh Reef at 12:04 am March 24, 1989. Captain Hazelwood was in his quarters at the time.



Can I have more detail, please?

Click here for a detailed account of the accident as reported by the [Alaska Oil Spill Commission in its 1990 Final Report](#).

Was the captain drunk?

The captain was seen in a local bar, admitted to having some alcoholic drinks, and a blood test showed alcohol in his blood even several hours after the accident. The captain has always insisted that he was not impaired by alcohol. The state charged him with operating a vessel while under the influence of alcohol. A jury in Alaska, however, found him NOT GUILTY of that charge. The jury did find him guilty of negligent discharge of oil, a misdemeanor. Hazelwood was fined \$50,000 and sentenced to 1,000 hours of community service in Alaska (Hazelwood v. State of Alaska, <http://www.touchngo.com/ap/html/ap-1595.htm>). He

Information provided by the Information Resource Center
Embassy of the United States of America
Madrid, Spain

completed the community service ahead of schedule in 2001. He picked up trash along the Seward Highway and worked at Bean's Café, a "soup kitchen" for the homeless in Anchorage, Alaska.

What's being done to prevent another Exxon Valdez-type accident?

See the [Spill Prevention and Response](#) page for a thorough answer.

How much oil was spilled?

Approximately 11 million gallons or 257,000 barrels or 38,800 metric tonnes. *Picture the swimming pool at your school or in your community. The amount of spilled oil is roughly equivalent to 125 olympic-sized swimming pools.*

How much oil was the Exxon Valdez carrying?

53,094,510 gallons or 1,264,155 barrels

How does the Exxon Valdez spill compare to other spills?

The Exxon Valdez spill, though still one of the largest ever in the United States, has dropped from the top 50 internationally (<http://www.cutter.com/osir/biglist.htm>). It is widely considered the number one spill worldwide in terms of damage to the environment, however. The timing of the spill, the remote and spectacular location, the thousands of miles of rugged and wild shoreline, and the abundance of wildlife in the region combined to make it an environmental disaster well beyond the scope of other spills.

How many miles of shoreline were impacted by oil?

Approximately 1,300 miles. *200 miles were heavily or moderately oiled (meaning the impact was obvious); 1,100 miles were lightly or very lightly oiled (meaning light sheen or occasional tarballs). By comparison, there is more than 9,000 miles of shoreline in the spill region.*

How large an area did the spill cover?

From Bligh Reef the spill stretched 460 miles to the tiny village of Chignik on the Alaska Peninsula.

How was the spill cleaned up?

Complicated question. It took more than four summers of cleanup efforts before the effort was called off. Not all beaches were cleaned and some beaches remain oiled today. At its peak the cleanup effort included 10,000 workers, about 1,000 boats and roughly 100 airplanes and helicopters, known as Exxon's army, navy, and air force. *It is widely believed, however, that wave action from winter storms did more to clean the beaches than all the human effort involved.*



How much did it cost?

Exxon says it spent about \$2.1 billion on the cleanup effort.

What techniques were used?

TIP: Check out National Geographic, January 1990, Pages 18-19 for a great illustration on how shoreline cleanup was conducted.

Information provided by the Information Resource Center
Embassy of the United States of America
Madrid, Spain

Hot water treatment was popular until it was determined that the treatment could be causing more damage than the oil. Small organisms were being cooked by the hot water.



High pressure cold water treatment and hot water treatment involved dozens of people holding fire hoses and spraying the beaches. The water, with floating oil, would trickle down to the shore. The oil would be trapped within several layers of boom and either be scooped up, sucked up or absorbed using special oil-absorbent materials.

Mechanical cleanup was attempted on some beaches. Backhoes and other heavy equipment

would till the beaches to expose oil underneath so that it could be washed out.

Many beaches were fertilized to promote growth of microscopic bacteria that eat the hydrocarbons. Known as **bioremediation**, this method was successful on several beaches where the oil was not too thick. For further technical information, go to the [EPA website](#) and search using the terms "bioremediation, Exxon Valdez."

A few solvents and **chemical agents** were used, although none extensively.

How about more detail on cleanup techniques?

Follow this link to read the chapter on Technology in [The Exxon Valdez Oil Spill, Final Report, State of Alaska Response, 1993](#)

How many animals died outright from the oil spill?

No one knows. The carcasses of more than 35,000 birds and 1,000 sea otters were found after the spill, but since most carcasses sink, this is considered to be a small fraction of the actual death toll. The best estimates are: 250,000 seabirds, 2,800 sea otters, 300 harbor seals, 250 bald eagles, up to 22 killer whales, and billions of salmon and herring eggs.



How are the animals doing now?

Lingering injuries continue to plague some injured species while others are fully recovered.

See the [Status of Injured Resources](#) section of this web site.

Here are some other useful web sites that may help answer this question:

- http://www.afsc.noaa.gov/Quarterly/jas2001/feature_jas01.htm
- <http://abscweb.wr.usgs.gov/nvp/>
- <http://www.pwssc.gen.ak.us/sea/sea.html>
- http://abscweb.wr.usgs.gov/research/programs/ecosystems_habitats.htm
- <http://www.afsc.noaa.gov/abl/OilSpill/oilprojects.htm>

How does oil harm birds and mammals?

TIP: Check out National Geographic, January 1990, Page 26-27 for a great illustration on how oil affects the fur and feathers of wildlife.

There are three primary ways oil injures wildlife:

1. The oil gets on the fur and feathers and destroys the insulation value. Birds and mammals then die of hypothermia (they get too cold).

2. They eat the oil, either while trying to clean the oil off their fur and feathers or while scavenging on dead animals. The oil is a poison that causes death.
3. The oil impacts them in ways that does not lead to a quick death, such as damaging the liver or causing blindness. An impaired animal cannot compete for food and avoid predators. Oil also affects animals in non-lethal ways such as impairing reproduction.

How were the oiled birds and sea otters cleaned?

A professional team and dozens of volunteers, including veterinarians, set up a cleaning facility and recovery facility. Dawn dishwashing detergent was the cleaning agent of choice.

Excerpts from: Exxon Valdez Oil Spill Trustee Council
[http: oilspill.state.ak.us/facts/qanda.html](http://oilspill.state.ak.us/facts/qanda.html)

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3. Annotated Web Sites

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Exxon Valdez Oil Spill Trustee Council



<http://www.oilspill.state.ak.us/>

El *Exxon Valdez Oil Spill Trustee Council* (EVOSTC) se creó para supervisar la recuperación del ecosistema que fue dañado gravemente por el vertido del Exxon Valdez. El EVOSTC está formado por tres miembros del gobierno federal de EE.UU. y otros tres miembros del gobierno del estado de Alaska. El servidor recoge abundante información sobre el asunto: una relación de congresos y conferencias dedicados al vertido y sus consecuencias, los distintos proyectos de recuperación de la zona, la protección de su hábitat, publicaciones relacionadas, informes sobre las distintas especies afectadas por el vertido, etc. Es de destacar la información que ofrece sobre el **Programa GEM** (*Gulf of Alaska Ecosystem Monitoring and Research*) también gestionado por el personal del EVOSTC:

<http://www.oilspill.state.ak.us/gem/index.html>

U.S. Environmental Protection Agency's Oil Program



<http://www.epa.gov/oilspill/>

Este servidor ofrece información de interés sobre los programas de la *U.S. Environmental Protection Agency* (EPA) dedicados a la prevención, los mecanismos de respuesta y los procesos de recuperación tras un posible vertido de fúel en aguas territoriales de EE.UU. Recoge el texto completo de leyes y normas sobre el asunto, incluida la nueva normativa sobre *Spill Prevention Control and Countermeasure* (SPCC). El servidor ofrece además multitud de publicaciones, como el folleto titulado *Understanding Oil Spills and Oil Spill Response* (<http://www.epa.gov/oilspill/pdfbook.htm>). Parte de la información que ofrece el servidor se dedica específicamente al análisis de casos particulares, como el del Exxon Valdez, donde se relatan los hechos acaecidos y los procesos de limpieza de la zona. <http://www.epa.gov/oilspill/exxon.htm>

U.S. Environmental Protection Agency's Office of Wetlands, Oceans, & Watersheds

**Our
Waters**



<http://www.epa.gov/owow/>

La Oficina de Humedales, Océanos y Cuencas (OWOW) de la U.S. Environmental Protection Agency (EPA) promueve la gestión integrada de la protección y recuperación de todos los recursos hídricos y sus ecosistemas particulares desde un punto de vista de las cuencas. Esta estrategia se basa en el supuesto de que la gestión de los recursos hídricos y sus ecosistemas es mejor si se tienen en cuenta las cuencas naturales de dichos recursos y se valora al mismo tiempo el papel que juegan los ciudadanos para la consecución de aguas sin contaminar. El servidor ofrece información sobre los recursos hídricos de EE UU clasificados en cuatro grandes apartados: el mar y las costas, los lagos, los ríos y corrientes superficiales y, por último, las marismas y humedales. Además ofrece información de interés sobre la protección de dichos recursos frente a la contaminación, así como el texto completo de la legislación aplicable. Una parte de la información que ofrece este servidor está en castellano: <http://www.epa.gov/owow/espanol.html>

U.S. National Response Team



<http://www.nrt.org/>

El *National Response Team* es un organismo que integra las 16 agencias federales responsables de diversos aspectos de respuesta urgente ante cualquier accidente contaminante. Su objetivo es mejorar la capacidad de acción de dichas agencias, así como obtener una respuesta rápida y coordinada de todas ellas. La *U.S. Environmental Protection Agency* ostenta la presidencia del *National Response Team* y el *U.S. Coast Guard* la vicepresidencia. Además de la coordinación entre las diversas agencias, el NRT persigue la participación del sector privado en los esfuerzos de alerta y respuesta ante los accidentes que provocan contaminación. De especial interés es el seguimiento que se hace de los vertidos de petróleo en todo el mundo y, en particular, del reciente caso ***Prestige*** en la costa española.

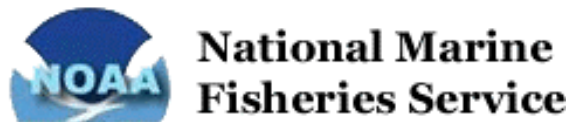
Department of the Interior's Restoration Program



<http://restoration.doi.gov/>

El objetivo primordial del *Natural Resources Damage Assessment and Restoration Program* del Departamento de Interior de EE.UU. es recuperar los recursos naturales que hayan sido dañados por vertidos de petróleo o fugas de otras sustancias tóxicas. El programa evalúa la magnitud de los daños causados sobre los recursos naturales que son responsabilidad del Departamento de Interior, y emprende las acciones legales necesarias contra los responsables de dichos daños. El servidor ofrece información sobre la metodología utilizada en sus programas, la legislación aplicable, los casos abiertos y enlaces relacionados con el asunto.

National Marine Fisheries Service, Office of Exxon Valdez Oil Spill Damage Assessment and Restoration



<http://www.fakr.noaa.gov/oil/default.htm>

Este servidor ofrece información y enlaces de interés sobre el vertido del Exxon Valdez y el seguimiento de la recuperación ecológica de la zona.

De especial interés son los programas de seguimiento de la recuperación de las distintas especies y su ecosistema como la página dedicada a los depredadores: Alaska Predator Ecosystem Experiment
<http://www.fakr.noaa.gov/oil/apex.htm>

Alaska Fisheries Science Center, Exxon Valdez Oil Spill Research, The Auke Bay Laboratory



<http://www.afsc.noaa.gov/abl/oilspill/oilspill.htm>

El Laboratorio de *Auke Bay* (ABL), que viene llevando a cabo señalados proyectos de investigación sobre los recursos marinos en Alaska desde 1973, ha estado implicado desde el primer día en la evaluación de los

efectos del vertido del Exxon Valdez. En particular se dedican a estudiar los efectos del crudo sobre peces e invertebrados.

**The Alaska Science Center - Biological Science Office,
U.S. Geological Survey, Biological Resources Division**



<http://www.absc.usgs.gov/>

El Alaska Science Center - Biological Science Office, que forma parte de la División de Recursos Biológicos del *U.S. Geological Survey*, juega un papel fundamental en la investigación de las especies animales y su hábitat en Alaska. El ecosistema del estado de Alaska es especialmente rico, el 65% de las tierras que forman parte de los Parques Nacionales de EE UU está en Alaska. El servidor ofrece información sobre los proyectos de investigación relacionados con el vertido del Exxon Valdez

http://www.absc.usgs.gov/research/programs/ecosystems_habitats.htm#EVOS, además de estudios sobre las especies afectadas, como el caso del *Nearshore Vertebrate Predator Project* (<http://www.absc.usgs.gov/nvp/index.htm>) que estudia la repercusión del vertido sobre los depredadores del ecosistema costero de la zona y su posterior recuperación.

Alaska Department of Environmental Conservation, Division of Spill Prevention and Response



http://www.state.ak.us/local/akpages/ENV.CONSERV/dspar/dec_dspr.htm

Es el servidor del Programa de Prevención y Respuesta Urgente (*Prevention and Emergency Response*) del Departamento de Conservación Medioambiental del estado de Alaska, cuya misión es supervisar y aprobar la limpieza de vertidos de petróleo y otras sustancias tóxicas por parte de los responsables de dichos vertidos, y de llevar a cabo la limpieza directamente cuando los responsables directos no pueden hacerse cargo de ello. Además de coordinar la respuesta ante un vertido y responsabilizarse de su limpieza, realizan estudios de evaluación del impacto de los vertidos y forman al personal destinado a zonas de riesgo. El servidor ofrece una una página específica dedicada al seguimiento del desastre del Exxon Valdez, diez años después del vertido (actualizada en 1999):

<http://www.state.ak.us/local/akpages/ENV.CONSERV/dspar/perp/exxonval.htm>

10 Years after the Valdez Oil Spill: an Environmental Update



<http://www.valdezscience.com/>

Un grupo de científicos que participaron en la *International Oil Spill Conference* de Seattle, del 8 al 11 de marzo de 1999, hizo un seguimiento de las consecuencias ecológicas del vertido y la regeneración de la zona, durante los diez años que siguieron al accidente del Exxon Valdez frente a las costas de Alaska. En muchos casos se compara el accidente de Alaska con otros vertidos importantes. Hay una interesante bibliografía crítica sobre la repercusión medioambiental del desastre.

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4. Further information available in the attached CD ROM

5. Further information available in the attached CD ROM

1. Exxon Valdez Oil Spill, Long Term Environmental Consequences.

Prepared by: The Information Resource Center. Embassy of the United States of America. January 2003.

CD ROM FILE: Exxon Valdez Infopack (Word document).

2. Exxon Valdez Oil Spill, Cleanup, and Litigation: A Collection of Social-Impacts Information and Analysis. Final Report, Volume III: Final Social Aspects.

Prepared for: Michael Baffrey, Contracting Officer's Technical Representative U.S. Department of the Interior Minerals Management Service Environmental Studies Section. Prepared by: Impact Assessment, Inc. August 2001.

CD ROM FILE: REPORT final social impacts (PDF document).

(Source: Alaska Outer Continental Shelf (OCS) Region of the Minerals Management Service (MMS). MMS is a bureau of the Department of the Interior. <http://www.mms.gov/alaska/reports/EVOS/volume3.pdf>)

3. Exxon Valdez Oil Spill, Cleanup, and Litigation: A Collection of Social-Impacts Information and Analysis. Final Report, Volume IV: Introduction to the Final Annotated Bibliography and Abstracts.

Prepared for: Michael Baffrey, Contracting Officer's Technical Representative U.S. Department of the Interior Minerals Management Service Environmental Studies Section. Prepared by: Impact Assessment, Inc. August 2001.

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4. Exxon Valdez Oil Spill, Cleanup, and Litigation: A Collection of Social-Impacts Information and Analysis. Final Report, Volume V: Final Annotated Bibliography and Abstracts.

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(Source: Alaska Outer Continental Shelf (OCS) Region of the Minerals Management Service (MMS). MMS is a bureau of the Department of the Interior. <http://www.mms.gov/alaska/reports/EVOS/volume5.pdf>)

5. *Gulf Ecosystem Monitoring and Research Program (GEM)*. July 9, 2002
The GEM Program Document Abridged Version. Exxon Valdez Oil Spill
Trustee Council.

CD ROM FILE: GEM abridged (PDF document).

(Source: Exxon Valdez Oil Spill Trustee Council.
<http://www.oilspill.state.ak.us/pdf/gem/gemabridged.pdf>)

6. *The Oil Pollution Act of 1990*. In Adobe Acrobat format, this is the text of
OPA90.

CD ROM FILE: Oil Pollution Act of 1990 (PDF document).

(Source: NRT & <http://www.uscg.mil/hq/g-m/nmc/response/opawordp.pdf>)

Appendix

Prince William Sound oil spill prevention and response Response

Then and Now

Ten years ago, the Exxon Valdez ran aground in Alaska's Prince William Sound, spilling over 11 million gallons of oil. Ten years later, the story is not only one of natural ruin and recovery, it is the human story of lessons learned and actions taken. Alaska today has the best oil transportation system in the world, thanks to the dedicated efforts of concerned citizens, Prince William Sound's local communities, strengthened state laws, restoration studies, and extensive industry investment.

Prevention	March 1989	March 1999
tanker escorts	Limited ship escorting with tug through the Valdez Narrows.	Ship escort system (SERVS) in place, with operating zones for approaching and transiting Valdez Narrows. Two largest-in-the-world tractor tugs for tanker escort: one in service 2/99, the other scheduled 5/99.
support vessels	No support vessels.	An ocean rescue tug stationed at the Sound's entrance (Hinchinbrook Entrance) since 1997. Three highly maneuverable Prevention and Response Tugs will begin replacing the existing Escort Response Vessels 1/2000.
tanker transport	No requirement for double hull tankers.	Requirement for phase-in of double hull tankers by the year 2015. Two tankers with advanced navigation and ship handling features being built, the first scheduled for service at the turn of the millennium.
pilot training	No extra training required of tanker officers, tug officers, and marine pilots.	Advanced training for tanker officers, tug officers, and marine pilots; reactivated mariner's forum for monitoring and evaluating tanker operations.
ship tracking	Ship tracking limited to near Bligh Reef.	U.S. Coast Guard controlled ship tracking system throughout Prince William Sound (PWS) and 60 miles into the Gulf of Alaska.
planning	Basic oil discharge contingency plan developed by Alyeska was inadequate, and implementation was not timely for the Exxon Valdez spill.	Detailed oil discharge prevention and contingency plans developed by individual shippers and Alyeska and approved by DEC. Alyeska must respond in the Sound.
State oversight	Limited State oversight of Valdez marine terminal and tanker operations by three DEC generalists in Valdez.	Comprehensive State oversight of marine terminal and tanker operations, with seven DEC regulatory and spill prevention and response specialists located in Valdez.
Response		
equipment on hand	Less than five miles of containment boom in Prince William Sound.	Approximately 34 miles of specifically selected types of oil boom.
	No fire boom or igniter systems.	2600 feet of fire boom with helicopter-carried igniter systems.
	2,475 gallons of dispersants listed in plan but no application systems immediately available.	64,000 gallon dispersant stockpile, with fixed wing, helicopter and ship application systems.

Then and Now

March 1989

March 1999

equipment locations	No response equipment stockpiled outside of Valdez.	Pre-staged equipment near the Sound's entrance (Hinchinbrook Entrance), in mid-Sound, and in Valdez and four other communities.
oil recovery	13 oil skimming systems with a combined recovery capacity of over 27,800 barrels of oil in 72 hours. One barge with 12,000 barrels of on-water storage for recovered oil stationed in Valdez.	Over 60 skimming systems, including four Transrec/Grahamrec systems (a total of 12 large skimmers), with a combined recovery capability of over 300,000 barrels of oil in 72 hours. Seven barges with 818,000 barrels of on-water storage for recovered oil strategically located throughout the Sound. 52 smaller barges for near shore work.
trained responders	Limited number of trained spill responders.	Dedicated trained spill response teams and Ship Escort/Response Vessel System (SERVS).
hatchery protection	No salmon hatchery protection plans or pre-staged spill response equipment at hatcheries.	Hatchery protection plans for all five PWS hatcheries and Afognak Island's Kitoi Bay hatchery, with pre-staged equipment there and in Tatitlek to protect oyster farming.
citizen involvement	No organized citizen involvement in plan development and oversight.	Prince William Sound and Cook Inlet Regional Citizen Advisory Councils created.
community involvement	No community response centers. No plan to involve local fishing vessels in a response to a spill.	Five community response centers in PWS: Valdez, Cordova, Tatitlek, Whittier, and Chenega Bay. A program to train fishing vessel personnel in Prince William Sound, lower Cook Inlet and Kodiak, and incorporates vessels into a response strategy.
wildlife rescue	No established wildlife rescue programs.	Wildlife response plan with rescue and rehabilitation equipment in place.
practice drills	No major spill drills conducted.	Major spill drill conducted annually, with frequent smaller drills.
managed response	No consistent management structure for spill response.	A Unified Command Incident Command Structure adopted by DEC, Coast Guard, SERVS and shippers for response to oil spills.
communications	Limited State radio communications for spill response command in PWS.	Fixed radio repeater system with communications capability to cover PWS and Cook Inlet, with some reach into the Gulf of Alaska.

We invite your comments and questions. Please contact us at:

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Background photos

Cover: the *Nanuq*, the first of two largest-in-the-world tractor tugs for tanker escort.
This page: a tanker loading oil at the Valdez terminal. — ADEC photos

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